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THE SYMPHYSEOTOMIES OF THE UNITED STATES AND OF CANADA.*

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It will surprise many to find that symphyseotomy in America dates back fifteen years, and that it was performed with entire success in Texas in 1880, in which year there were but six operations in the world, one third of them proving fatal to the women. Of these six cases, only one was operated upon out of Naples, and this was in Denison, Texas, under Dr. Joel O. Williams, now a country surgeon of William Penn, Washington County, in that State.

Dr. Williams was at that time in the commencement of his career as a physician, and was called upon to deliver a *single* girl of thirteen, the birth of whose child under the circumstances he promised to keep a secret. Finding the girl's pelvis small and the foetal head large, and failing to deliver with the forceps, it occurred to him that he could gain pelvic space by separating the symphysis pubis, which he had seen cut through as a matter of curiosity by an associate in a Cincinnati dissecting-room.

Dr. Williams was a student of the Miami College from Kentucky, and knew nothing of symphyseotomy, which was not lectured upon; neither did his obstetric text-book mention it as a scheme of delivery. He had not heard of Sigault or of the revival of his method under Profs. Morisani and Novi in Naples. Getting his medical education under close economy, he had no advantages other than those afforded by the college lectures and the few books he was obliged to purchase. His operation, in so far as he was concerned, was an original idea be-

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gotten under the necessity of the moment, and was performed with a tenotomy knife, which enabled him to deliver a twelve-pound male foetus with the forceps under a pubic separation which admitted of his forcing in the tissues of the mons veneris with the ends of the fingers.

As the operator was forced to do his work without assistance, it will be of interest to repeat what he wrote in a letter to me more than a year ago, in which he described the method adopted. The girl being brought under the influence of chloroform and placed partly on her left side, "I flexed the right leg strongly upon the thigh, and the thigh upon the abdomen, and sat down upon the edge of the bed in such a manner as to retain her leg in the above position. My right arm and hand were between her two legs; her right leg was retained in a flexed state by my left shoulder and breast, my left arm being passed under her right thigh and the hand used to depress the clitoris. In my right hand I carried a Tiemann tenotomy knife; I passed the point through the tissue just over the inferior margin of the joint, and, directing it upward, carried it in that direction. I then set free the clitoris and took hold of the pubic hair, by which I sustained the dermal pubic covering from the point of the knife, and after some effort discovered that the blade was evidently in the symphysis. I then used both hands in directing the knife, so as to prevent any slip or awkward cut being made. The bones were separated, and when I felt them yield I withdrew the knife and set the legs apart." I think the girl may have been conscious when I delivered the child by the forceps.

Dr. Williams is broad shouldered and strongly built, which enabled him to hold the girl while he operated; the women of the household absented themselves, being too much frightened to be of any assistance. It was not intentional that he was without a consultant, as he sent for a prominent physician in the night, and the messenger returned with a report that he was not at home. This was an error, as the books of the physician have since shown, and it is now thought by Dr. Williams that the messenger gave a false report designedly so as to compel him to be alone in the secret. This secret was kept so securely for nearly fourteen years that no physician ever heard of the case during that period either in Denison or elsewhere. The girl recovered, the boy lived, the mother married and removed, and Dr. Williams settled in his present location more than twelve years ago. Here in 1884 and in 1889 he performed a second and a third symphyseotomy before any one in America operated.

I first heard of these operations in February, 1894, and at once

took steps to ascertain whether Dr. Williams' statements were to be credited or not. I wrote to physicians in Denison and its vicinity and found they knew nothing of his first case, and never having heard of it did not hesitate to brand the report as a fabrication and its author as entirely unreliable. If I could have furnished them as they proposed with the name of the family or the number of their house and name of the street, they would no doubt have traced up the whole case and the subsequent history of the girl. But this, Dr. Williams did not feel in conscience that he had any right to do, so he endured their charges rather than fail in his professional obligations to his young patient, who he presumed might have married in the meantime and become the mother of other children.

I opened a correspondence with Dr. Williams on February 28, 1894, which has been kept up to the present time, and on March 2d of the same year sent him a blank table for the three cases, which he filled up and returned with the points presented at the head of my tabular record.

Finding all of Dr. Williams' statements discredited because of the doubts regarding the Denison case, I secured the preparation of affidavits taken before Court, which settled his veracity as to Cases II and III, and rendered it highly probable that he had told the truth as to the case secretly operated upon in Denison at an earlier period. This is the view taken in a letter to me by a prominent physician in Denison, who expressed his pleasure at finding that the pioneer symphyseotomy of America belonged to the credit of Texas.

Having proved the performance of operations two and three, the next step was to search for and find the subject of the first operation, who had not been heard of for several years, although believed to be still alive. This search had to be made with much care and tact, so as not in any way to make known the early history of the woman. After some months, she was traced to a leading city in the far South, where she occupied a good social position as a wife and mother. As her pelvis had developed with mature years, she was able to give birth naturally to several children. The symphyseotomy boy is well grown, and was fifteen years old on April 29th ult.

In the second operation of Dr. Williams, an incision was made at the top of the symphysis, of an inch and a half in length, and the separation was effected by carrying a curved probe-pointed bistoury behind the joint and cutting from within outward. In this case there was less pubic separation than in the first, and the foetal head was thought somewhat enlarged by hydrocephalus, as shown by the dis-

charge of an extra amount of fluid under perforation. The computation of two and three eighth inches for the *conjugata vera* must have been an error, as the woman delivered herself of a living male fœtus twenty-six and a half months later. The patient and boy now live in northern Georgia, where she gave her affidavit. I have her full-length photograph, taken quite recently in Covington, Ga.

Dr. Williams' third operation was upon a colored woman far advanced in Bright's disease, and having a contracted pelvis. The pubic bones separated two inches, and the child, strange to say, lived a year, although the mother died of uræmia in sixty hours. The doctor was assisted by a farmer who had studied medicine a year, and then gave it up; he gave an affidavit in Court as to the method of delivery.

It is the height of folly in any one to try to make out Dr. Williams a fabricator of his cases. The physicians of Denison doubted his veracity; but after the receipt of numerous letters during fifteen months, I have not been able to find the least evidence in vindication of their estimate of his character. Certainly the account of his operation in their city reads very little like a romance. Dr. Williams lived a few years in Denison, where he was not thought a surgeon; but the spirit of surgery was in him, and it has developed to a marked degree in the last eight years. He is an original thinker, and has nerve and humanity enough for his work: but shows no anxiety for notoriety, and has not reported some of his most creditable works. I have not been able to find in him the least tendency to departure from the truth, or to distortion of facts; and to question his veracity is an insult to his sense of honor. He is ambitious, but it is in the line of professional improvement, and had he the means, would put himself in a position to perfect his knowledge by observation and study.

Although Dr. Williams, who bears a good name in his section of Texas, was undoubtedly the first to perform a symphyseotomy in America, his having done so was not known to others until after it had been performed forty times by other men, with a saving of thirty-one children and thirty-five women. Thirty-one operators in ten States had reported their cases before Dr. Williams felt that he was at liberty to reveal the particulars of his own secreted work. He therefore had nothing to do with the introduction of the operation* and commending it to his medical brethren. The operation was commended and described to the fellows of this Society on September 20, 1892, and in seventeen days, as opportunity favored, there were three women delivered under it, and this number increased to seven with-

out a maternal death in the next three months, although two children died within three days after birth. These seven bore fruit in the multiplication of cases in 1893, when thirty-one operations took place, making the United States the second in point of numbers for that year, as compared with the countries of Europe, the lead being that of Germany, which had six cases more. These thirty-one symphyseotomies lost five women and eight children, a proportion that was somewhat discouraging to its advocates, and gave an excuse for the opposition of others, who were not convinced of its thorough practicability. Since the close of 1893 there have been thirty-three operations, with a mortality of four women and eight children. The operation is still in its infancy in America, and much has yet to be learned, and much more care taken, before the mortality can be reduced to the low percentage of Italy for the last nine years.

General Summary of the Cases in the United States.—We have had seventy-four symphyseotomies in fifteen years, and seventy-one in two years and seven months. There were ten prior to January 1, 1893; thirty-one in the year 1893; twenty-six in 1894; and seven thus far in 1895. The seventy-four operations were the work of forty-four operators, and fifteen of them are fellows of this Society. These fifteen operated thirty-seven times, and lost four women and nine children. Of the seventy-four women ten died, and of the children eighteen were lost. The cases were distributed throughout the United States as follows:

STATES.	Cases.	Women died.	Children lost.
Pennsylvania.....	24	4	6
New York.....	24	2	4
Illinois.....	9	2	1
Texas.....	3	1	1
California.....	2	..	1
Massachusetts.....	2	..	1
Washington.....	2	..	1
New Jersey.....	2	..	1
Louisiana.....	1	1	1
Maryland.....	1	..	1
Maine.....	1	..	..
Ohio.....	1	..	..
Oregon.....	1	..	..
District of Columbia.....	1	..	..
	74	10	18

Causes of Death in the Ten Fatal Cases.—The numbers given refer to the tabular record, in which the causes are not stated. By associating them together, the causes can be better considered and avoided.

CASE III.—Death unavoidable. Subject far advanced in Bright's disease, with kidney action suspended. Death from uræmia in sixty hours. Child lived a year.

CASE XII.—Woman believed to be beyond hope; child still alive, and brow presenting. Opening the symphysis permitted version by the vertex. Woman and child unskillfully treated before removal to the hospital: both died in a few hours.

CASE XVII.—Patient believed to have been infected with sepsis through uncleanly obstetric management prior to the operation; she died of septic peritonitis on the eleventh day.

CASE XIX was intemperate, and is believed to have caught cold on her way to the Maternity when in labor, and exposed to cold and dampness. She died of double pneumonia in seventy-two hours. Two accoucheurs in charge said there were no septic symptoms.

CASE XXIX.—A multipara of forty-two; was three days in labor before going to the Maternity. She died of direct sepsis from the wound behind the symphysis on the eleventh day.

CASE XXXIX was a multipara of forty-three; in labor thirty-six hours, and in bad condition when she entered the hospital. Her vagina was badly torn and œdematous from attempts to deliver before going to the hospital. She had a pulse of 140, and temperature of 102°. Death occurred in twelve hours from shock; she was also septic.

CASE XLIV.—Subject an undeveloped girl of fourteen, living in extreme poverty; was in labor twenty-eight hours, and twenty-two of them under the care of a young physician. She died of septic peritonitis in five days. Child believed to have died under forceps pressure. Hygienic surroundings very bad.

CASE LVI.—Subject was a fat colored multipara believed to weigh two hundred and thirty pounds. She was in labor sixty hours; had a small pelvis and a very large foetus. Vigorous and prolonged attempts were made to deliver by the forceps before the operation, fracturing, as was afterward found, the os frontis and os occipitis of the foetus. Operation by direct incision through three inches of fat. Wound healed by first intention; but injuries to the vagina by the forceps resulted in gangrene, of which the woman died on the fifth day.

CASE LXX was in labor at intervals for a week ; but was in a "fairly good condition " when operated on. She died of septic peritonitis on the fourth day, which was attributed to infection through an opening in the anterior vaginal wall.

CASE LXXIV was a primipara of nineteen ; in labor nineteen hours, and in good condition when operated upon. She had a rachitic pelvis, and was delivered by the forceps. Her death was due to septic peritonitis and was said to be a radiation "from the pre-vesical space." She died on the seventh day.

Cases XII, XIX, XXIX, XXXIX, LXX, and LXXIV died in hospital ; and Cases III, XVII, XLIV, and LVI in private practice.

In Cases III, XII, XXXIX, and LVI the prognosis was very unfavorable at the commencement of the operation. In only two cases was the condition of the patient a favorable one for symphyseotomy.

The mortality of the children is one of the drawbacks to symphyseotomy, and with proper care might be much reduced, as it has been, by long experience and thoughtful management in Italy. As it is a substitute for craniotomy, the life of the fœtus should be regarded as one of primary importance. The Cæsarean operation in our country has been very disheartening in its results. It is less fatal to the children than symphyseotomy, but far more fatal to the mothers. There are Maternities in Europe, like those of Leipsic and Dresden, where the Cæsarean section has a very low percentage of death—so much so that it is preferred by certain obstetric surgeons to symphyseotomy. Operators like Zweifel regard both means of delivery with favor, having had good success with each. The danger in symphyseotomy does not lie so much in the pubic section as in injuries produced by the forcible delivery of the fœtus under forceps of unsafe form and adaptation. If the fœtus is known to be dead before the operation, the case is an exceptional one, where the delivery should be by symphyseotomy. Of the eighteen children lost in the United States, four were already dead before the operation ; two were destroyed by craniotomy in preparation for delivery, having hydrocephalus ; four died in delivery, two by version, the head being too large for the pelvis, and two by forceps pressure ; six died on the first day after delivery, some from forceps injury ; and one died on the third day.

The weight of the American fœtus is to be considered in calculating the minimum *conjugata vera* for our operations, and this should not be less than seven centimetres, or two and three quarter inches, because, by a careful calculation, forty-four male fœtuses delivered under

symphyseotomy weighed an average of eight pounds three ounces, and twenty-five females eight pounds one ounce. The Italian minimum of sixty-seven millimetres is too small for the average American baby's head. The biparietal measurements of many that have been delivered show this : viz., three and three quarter inches in eleven cases, four inches in seven, four and an eighth inches in three, four and a quarter inches in four, four and three sixteenths inches in one, and four and five sixteenths inches in one. The largest foetus weighed fifteen and a half pounds, and was brought through a conjugate of four inches by a pubic separation of four inches ; the urethra and bladder were lacerated and were repaired by suturing. The boy was lost in eight days by a diarrhoea produced by improper feeding (see Case XXXII of table).

The separation of the pubic bones has shown a variation of from one inch to as great as five inches, the ordinary measure being about two inches. The five-inch separation occurred in Case LV, under the care of Prof. Henry J. Garrigues, of New York, who says that it resulted "by the mere weight of the legs, without manual separation." The patient had a soft tumor apparently in the recto-vaginal wall, and a foetus of ten and three quarter pounds. Three and a half months after the operation, she had a waddling gait, a cystocele, and sometimes pains in the sacro-iliac and pubic symphyses. The symphysis pubis was firm. She was cured by a vaginal hysterectomy and double oöphorectomy. A separation of two inches, or even three inches, is quite compatible with a perfect convalescence and recovery. There is no occasion to suture the bones in the Italian method, as they can be held securely together by bandages and adhesive strips. The dressing for fixation should be unchanged at first, as removing the restraint upon the parts favors the production of a mobile union. Treat the joint as a fracture, and let it be kept as still as possible during the first two weeks.

The Delivery of the Fœtus after Incision.—To permit a woman to deliver herself, as was formerly done in Naples in about one case out of four, has not been the practice in the United States in head presentations, except in two instances. Fifty-four foetuses were delivered by the forceps, and in eighteen cases podalic version was employed ; one breech case was delivered by the feet. Of thirty-four primiparæ, twenty-four were delivered by the forceps, nine by version, and one by manual aid. Of the children of primiparæ, three were dead before the operation, two more were destroyed by craniotomy, two died under delivery by podalic version, one under the forceps, three died on the first day, and one on the third. Of the forty women

who had borne previously from one child to eleven, two were delivered of children already dead, two children died by forceps injuries, one in delivery, one in six hours, and two died shortly after delivery.

The After-history of Symphyseotomy Cases.—Under the suprapubic section of Morisani, where the tissues covering the symphysis are not incised, as in the French operation, and where stitching can not be employed to keep the bones in apposition, women have, as a rule, made good and rapid recoveries under a proper pelvic fixation. This has been the experience of Neapolitan operators expressed to me in writing, and they have had occasion to operate upon quite a number of women for a second time. Two women now living in Philadelphia, have been the subjects of two operations each, and their convalescence certainly recommends the operation. The records of symphyseotomy of recent years, have set aside the old objection to it, of severe injury done to the sacro-iliac synchondroses. This objection was very tenable in the days of Galbiati, of Naples, but the cases of this form of injury must be very rare now, in properly conducted operations. Opening the symphysis to the extent of three inches has been done with impunity in Naples and elsewhere, so far as these joints are concerned. But this is not the chief element of danger; neither is the claim that the symphysis pubis will not unite firmly, or may be a long time in doing so. The danger lies in the effect that is produced upon the urethra, vagina, and uterus, in the delivery of the foetus by the forceps, and the forcing open of the symphysis by the passage of its head under traction. The danger of sepsis lies in the torn or injured parts, and these must be at once repaired if it is to be prevented. Sepsis originating in the parts behind the symphysis may be avoided by packing with a tent of iodoform gauze, if there is bleeding, or by a drainage tent simply, if not. There is a very serious connection between the length of labor, prior attempts at delivery, and the fatal issue of a given case. Sepsis may be already established, and the condition of the woman made very critical before the knife is used. We admit that the true place for a symphyseotomy is in a well-conducted Maternity; but for success, the woman must enter before anything has been done, or better still, before labor. Emergency cases received in hospital have added three to their quota of deaths. Thirty-eight women were operated upon in private practice, and thirty-six in hospital, in the United States. Four women died in private practice, and six in hospital. Three children were already dead in the private cases, and two in the hospital. Six children were lost in the private cases, and seven in the hospital. These are

the facts, but they do not make a fair comparison for the Maternity results, especially as regards the deaths of the women.

The Lameness of Patients following Symphyseotomy.—Objectors to this operation make a great deal of capital out of a few cases of ununited symphyses. As there are cases of ununited fracture of long bones, so there will be exceptional ones of ununited symphyses, and an ambling gait, or even an inability to walk. I have not met with a case, but have heard of such, through correspondence. Sometimes there has formed an abscess, and been an exfoliation of a little piece of bone, or of a cartilage. Sometimes the bones have united, so as to admit of a perceptible mobility, but without lameness. One such woman had an alternate motion upward and downward of three eighths of an inch, and gave birth to a second fœtus without an operation; she had a *conjugata vera* of three inches. The worst case known to me was in a syphilitic woman, and took six months to recover. The proportion of cases is very small, and may be made still less by a proper after-treatment.

As lacerations of the cervix uteri, the vagina, urethra and perinæum are some of the consequences of forcible delivery of the fœtus after pubic section in primiparæ, the form of instrument and its mode of application are important. The axis-traction forceps as originally devised by Tarnier, with its Davis blades, oval fenestræ, and beveled edges, was an innocent instrument compared to many of its modifications, having the older kite shaped fenestræ. If the Davis blade is applied over the parietal protuberances, it will occupy but little space, and should not of itself injure either child or mother. If there is too great a disproportion between the fœtal head and pelvis, the soft parts may be injured by the head itself. The capabilities of the forceps for doing injury appear to have been demonstrated to such a degree in Vienna as to have reacted against symphyseotomy, and in favor of the Cæsarean section. The form of forceps in use in the Krankenhaus must be largely at fault. Our own operators should be particularly cautious, in view of the fact that American women produce larger fœtuses on the average than European women do.

My paper will hardly be complete without a statement concerning the extension and increase of symphyseotomy throughout the world. In 1891, the operation was entirely confined to Naples, which in that year had twelve cases, saving all the women and ten children. In 1892, it increased more than seven times, and was performed in twelve countries besides Italy. One death in eight and a half cases in 1892, and one in eight and two ninths cases in 1893.

SYMPHYSEOTOMIES OF 1892.				SYMPHYSEOTOMIES OF 1893.			
COUNTRIES.	Cases.	Women died.	Children lost.	COUNTRIES.	Cases.	Women died.	Children lost.
France	37	6	13	Germany.....	37	1	8
Germany.....	12	2	4	United States...	31	5	7
Italy	11	..	1	Austria.....	30	7	4
United States....	7	..	2	France.....	24	4	5
Austria.....	7	..	2	Russia.....	10	1	3
Russia.....	4	1	1	Italy	5	..	2
Holland	1	1	..	Belgium	2	..	..
Brazil	1	..	..	Canada.....	2	..	..
Denmark.....	1	..	..	Switzerland	1	..	..
Ireland.....	1	..	..	Sweden.....	1	..	..
Switzerland	1	..	..	Roumania.....	1	..	..
Canada.....	1	..	..	England.....	1	..	..
India.....	1	..	1	Holland	1	..	..
				Brazil	1	..	..
				India.....	1	..	..
13 countries....	85	10	24	15 countries...	148	18	29

The record of 1892 is believed to be very complete, as there has been time to collect the cases, and five statisticians worked upon it in correspondence in different countries. The table of 1893 is mainly due to the persevering labors of Dr. Franz Ludwig Neugebauer, of Warsaw, the most celebrated of all European statisticians. I have extended his list by an addition of American cases.

The average mortality under symphyseotomy is frequently inquired for, and has been conjecturally stated at ten per cent. ; but this is not correct, as these tables will show. Under the operators of Naples, Pinard of Paris, and Zweifel of Leipsic, the death-rate has been much lower than this. In Italy, from January 1, 1886, to January 1, 1894, there were fifty-three operations, with a loss of two women and eight children. In the clinique Baudelocque, of Paris, there have been four women lost out of forty-eight ; and in Germany, in 1893, the mortality (one in thirty-seven) was but two and three quarters per cent. These are the possibilities of the operation ; but the general mortality in all countries, taken collectively, is thirty-four in three hundred and three, or over eleven per cent. The record of the United States and Canada of ten deaths in seventy-nine is over twelve per cent. The record of this country has been taken very thoroughly, as the fullness of the points in the table will bear witness ;

and a very large proportion of the cases have been obtained or perfected by correspondence. Records have been secured that would never have been published, and the high rate of mortality is in a measure due to the search having been made without any desire to show other than the exact results, whether favorable or fatal, and a much more persevering hunt has been made for those cases which operators are not at all anxious to report in journals. After the character of the search made for American symphyseotomies, I am a little skeptical as to the thoroughness of the reports issued in European countries. What is wanted is a persevering local search made by a citizen of each country where any given operation is being performed, and then an intercommunication of the several parties engaged. This was done for the record of 1892.

Canada is to be commended for her progressive spirit, and congratulated upon her success; the operation of Dr. Springle followed, as the sixth, after the reading of my paper in Brooklyn. The union of the woman's symphysis gave him some anxiety, as the new intervening tissue admitted of a mobility of three eighths of an inch when alternately standing on one foot; but did not materially affect her locomotion. Such a result is uncommon where the pelvis is well secured and the patient obedient to the orders to keep still. The first woman operated upon in Philadelphia went back to Germany with her baby in two months. Her case was the first one reported in the United States, and at the time of the operation was thought to be the first in the country. Prof. Hirst has now operated six times without a maternal death, four of the cases being in two maternities and two in private practice; his first case was reported in twelve days after he operated, and had much to do with the introduction of the method. Prof. Charles Jewett antedated him in his operation by four days, and stood at the head of the American list as a symphyseotomist until Dr. Williams reported his three cases. Dr. Coggin was also a claimant for priority; but is no longer credited as an operator either in Alabama or Georgia, where he has been located. Personal statements from Athens have decided me to erase his name. This is the second report that I have felt obliged to drop from my tabular record for want of positive evidence as to credibility; there is no reason to discredit any one of the remaining seventy-four.

The Present Status of Symphyseotomy.—This mode of delivery is unquestionably now an established one in a number of countries, and has met with decided favor in some parts of the United States. Its chief centers are Paris, Leipsic, New York, and Philadelphia. It was

never very largely performed in Naples, ranging from six to twelve times a year, and has recently fallen off quite perceptibly. It has never become a favorite in Milan or Florence, although pelvic deformities overcome by craniotomy are quite common, and in former days led to many Cæsarean sections, particularly in Milan, which were almost uniformly fatal. There appears to be a feeling of rivalry against the operation that has given so much credit to Morisani and in favor of that which bears the name of Porro, of Pavian fame. There have been twenty-three symphyseotomies performed in Philadelphia and twenty-one in New York city, with four deaths in the former and two in the latter. Five children were lost in Philadelphia and three in New York. The surgery of symphyseotomy has much less to do with the death of the woman than the obstetrical manipulations that precede and follow it. This has certainly been the experience of our country, as shown by Cases XII, XVII, XXXIX, and LVI.

Symphiseotomies of the

No.	Date.	Operator.	Locality.	Hospital or private.	Age.	No. of preg.	Cause of difficulty.	Time in labor.	C. V. diameter.
1	Apr. 29, 1880.	Dr. Joel O. Williams.	Denison, Tex.	Private.	13	1	Transversely cont. pelvis.	18 hrs.	?
2	July 15, 1884.	Do.	William Penn, Wash. County.	"	23	1	Cont. pelvis.	18 hrs.	?
3	May 5, 1889.	Do.	William Penn, Tex.	"	18	1	Cont. pelvis and uræmic convulsions.	4 days.	Trans. 3 in.
4	Sept. 30, 1892.	Prof. Chas. Jewett.	Brooklyn.	"	22	1	Narrow inferior strait.	21 hrs.	Bis-ischiatic. 2½ in.
5	Oct. 3, 1892.	Prof. Barton Cooke Hirst.	Philadelphia.	Mat. of Univ. of Pa.	19	1	Cont. pelvis.	48 "	C. V. 3 in.
6	Oct. 7, 1892.	Prof. Anna E. Broomall.	"	Mat. of Woman's Hosp.	30	7	" "	24 "	3¼ in.
7	Oct. 25, 1892.	Prof. J. Edwin Michael.	Baltimore.	Free Hosp. for Women.	17	1	Narrow inferior strait—rachitic.	24 "	C. D. 3½ in.
8	Dec. 5, 1892.	Dr. Chas. P. Noble.	Philadelphia.	Kensington Hosp. for Women.	30	5	Cont. pelvis.	11 "	C. V. 2¾ in.

United States of America.

Part presenting.	Aid to delivery.	Result to woman.	Result to child.	Sex of child.	Weight of child.	B. P. diameter.	References.
R. O. A.	Forceps	Recov.	Lived.	M.	12 lb.	?	<i>Communicated</i> by the operator in 1894. (Woman and boy alive and well in 1895.)
L. O. A.	"	"	Dead ; craniotomy.	M.	?	?	<i>Com.</i> by the operator in 1894. (Woman alive and well in 1894.)
Vertex.	"	Died in 60 hours.	Lived.	M.	8 lb.	3 $\frac{3}{8}$ in.	<i>Com.</i> by the operator in 1894. <i>Med. News</i> , Phila., Jan. 26, 1895, p. 107.
"	Manual.	Recov.	Died in 24 hours.	M.	?	3 $\frac{1}{2}$ in.	<i>N.Y. Jour. Gynæcol. and Obstet.</i> , Nov., 1892, pp. 1079-1082.
"	Forceps	"	Lived.	F.	6 $\frac{9}{10}$ lb.	3 $\frac{1}{2}$ in.	<i>Med. News</i> , Phila., Oct. 15, 1892, pp. 431-433. <i>Trans. Coll. of Phys.</i> , Phila., 1893, p. 237.
"	"	"	"	F.	6 $\frac{1}{4}$ lb.	3 $\frac{3}{4}$ in.	<i>Am. Jour. Obstet.</i> , 1893, xxviii, pp. 303-312.
"	"	"	Died on 3d day.	M.	6 $\frac{1}{2}$ lb.	4 in.	<i>Maryland Medical Journal</i> , January 31, 1893, p. 268. <i>Com.</i> of Nov. 5, 1892.
"	Version and forceps.	"	Lived.	M.	8 $\frac{1}{8}$ lb.	3 $\frac{3}{4}$ in.	<i>Medical News</i> , Philadelphia, Feb. 18, 1893, pp. 176-181. <i>Trans. Coll. of Phys.</i> , Phila., 1893, pp. 56-60.

No.	Date.	Operator.	Locality.	Hospital or private.	Age.	No. of preg.	Cause of difficulty.	Time in labor.	C. V. diameter.
9	Dec. 16, 1892.	Dr. Harry McKennan.	Paris, Ill.	Private.	31	3	Rachitic pelvis.	12 hrs.	2 $\frac{3}{4}$ in.
10	Dec. 30, 1892.	Prof. H. J. Garrigues.	New York.	"	24	2	Gen. cont. pelvis, male type.	38 "	3 $\frac{1}{4}$ in.
11	Jan. 1, 1893.	Prof. J. Milton Duff.	Pittsburg.	"	44	11	Exostosis from injury of pelvis.	48 "	3 $\frac{1}{4}$ in.
12	Jan. 9, 1893.	Prof. Wm. T. Lusk.	New York.	Emergency Hosp., Bellevue.	27	1	Small pelvis; brow presenting; large head.	25 "	About 4 in.
13	Jan. 13, 1893.	Dr. Wolrad Winterberg.	San Francisco.	Private.	28	1	Funnel-shaped pelvis.	24 "	Trans. inf. 3 $\frac{1}{2}$ in.
14	Feb. 5, 1893.	Dr. H'y C. Coe.	New York.	N. Y. Mat. Hosp.	30	1	Simple flattened pelvis.	14 "	C. V. 3 in.
15	Feb. 11, 1893.	Dr. Egbert H. Grandin.	"	Infant Asylum.	19	1	Gen. cont. pelvis.	14 "	3 $\frac{1}{4}$ in.
16	Feb. 20, 1893.	Do.	"	"	20	1	"	7 "	3 $\frac{1}{4}$ in.
17	Mar. 1, 1893.	Dr. Geo. N. Kreider.	Springfield, Ill.	Private.	26	1	Small pelvis and large head.	16 "	About 3 in.
18	Mar. 3, 1893.	Dr. Horatio R. Holmes.	Portland, Ore.	"	23	1	Cont. pelvis.	60 "	3 in.

Part presenting.	Aid to delivery.	Result to woman.	Result to child.	Sex of child.	Weight of child.	B. P. diameter.	References.
Left arm.	Version and forceps.	Recov.	Lived.	F.	8 lb.	Average.	Med. News, Phila., Feb. 4, 1893, p. 130. (Symphysis divided by a metacarpal saw.)
Vertex.	Version	"	"	M.	7½ lb.	4 in.	Am. Jour. Med. Sci., Mar., 1893, pp. 286-298; April, 1893, pp. 399-417.
"	"	"	"	M.	9 lb. 3 oz.	3¼ in.	Com. by the operator, Feb., 1893.
Brow.	Version by vert. and forceps.	Died in 12 hours.	Died in 17 hours.	M.	9 lb.	4⅛ in.	Com. by the operator, Mar. 3, 1893. Am. Jour. of Med. Sci., April, 1893, p. 441.
L. O. A.	Forceps	Recov.	Lived.	M.	Est. 9 lb.	?	Med. News, Phila., Jan. 12, 1895, pp. 29-35. Com. of the operator.
Vertex.	Version	"	"	F.	8 lb. 1½ oz.	4¼ in.	Com. by the operator, Mar. 27, 1893. N. Y. Med. Rec., 1893, xliii, p. 485.
"	Forceps	"	"	M.	7 lb. 1 oz.	3½ in.	Com. by the operator, N. Y. Jour. Gynæcol. and Obstet., 1893, iii, pp. 461-465.
"	Version	"	"	F.	5 lb. 6 oz.	3⅜ in.	Op. cit. Am. Jour. Med. Sci., May, 1893, pp. 518-520.
"	Forceps	Died on 11th day.	Dead before operation.	M.	8 lb.	?	Com. by the operator, Mar. 19, 1893. Trans. Ill. Med. Soc., 1893, xliii, pp. 267-276.
"	"	Recov.	Lived.	F.	7½ lb.	3¾ in.	N. Y. Jour. Gynæcol. and Obstet., May, 1893, pp. 405, 406. Com. of June, 1893.

No.	Date.	Operator.	Locality.	Hospital or private.	Age.	No. of preg.	Cause of difficulty.	Time in labor.	C. V. diameter.
19	Mar. 8, 1893.	Dr. Edward P. Davis.	Philadelphia.	Mat. of Jefferson College.	30	4	Flat, rachitic pelvis.	20 hrs.	3 ³ / ₈ in.
20	Mar. 22, 1893.	Prof. Anna E. Broomall.	"	West Phila. House for Women.	25	2	Cont. pelvis.	50 hrs.	3 ¹ / ₄ in.
21	Mar. 24, 1893.	Dr. J. Clifton Edgar.	New York.	Private.	24	1	" "	48 hrs.	3 ¹ / ₄ in.
22	Mar. 31, 1893.	Dr. Horace Packard.	Boston.	Mass. Homœopathic Hosp.	28	1	Small pelvis.	48 hrs.	2 ³ / ₄ in.
23	Apr. 22, 1893.	Dr. Daniel Longaker.	Philadelphia.	Private. (1st operation).	30	4	Flat pelvis.	10 hrs.	3 in.
24	May 3, 1893.	Prof. Henry Parker Newman.	Chicago.	Private.	29	2	Gen. cont. pelvis.	24 hrs.	3 ¹ / ₂ in.
25	May 4, 1893.	Dr. Julius O. Cobb.	Port Townsend, Wash.	"	28	1	Equally cont. pelvis.	21 hrs.	?
26	May 8, 1893.	Dr. E. Gustav Zinke.	Cincinnati.	"	32	6	Flat pelvis.	72 hrs.	3 ³ / ₄ in.
27	June 13, 1893.	Dr. Robert L. Dickinson.	Brooklyn.	Flatbush Hosp.	26	2	Flat and gen. cont. pelvis.	12 hrs.	3 ¹ / ₄ in.

Part presenting.	Aid to delivery.	Result to woman.	Result to child.	Sex of child.	Weight of child.	B. P. diameter.	References.
Vertex.	Forceps	Died in 72 hrs.	Lived.	F.	7 ³ / ₄ lb.	3 ¹ / ₂ in.	N. Y. Med. Rec., May 13, 1893, pp. 577, 578.
"	"	Recov.	Dead before operation.	F.	8 ¹ / ₄ lb.	4 in.	Am. Jour. Obstet., 1893, xxviii, pp. 303-312.
"	"	"	Lived.	M.	7 lb.	3 ¹ / ₂ in.	Com. by the operator. N. Y. Medical Journal, vol. lix, Mar. 17, 1894, p. 343.
"	"	"	Dead before operation.	M.	9 lb.	3 ¹ / ₂ in.	Com. of May 10, 1893. Daily Med. Cent., May 20, 1893, pp. 7, 8.
Shoulder.	Version by vertex and forceps.	"	Lived.	M.	7 lb.	3 ¹ / ₄ in.	Com. by the operator, May 3, 1893. Annals of Gynæcol. and Pæd., Phila., 1893-'94, vii, p. 450.
Vertex.	Forceps	"	"	F.	12 lb.	4 in.	Com. by the operator, Jan. 1, 1894. Am. Jour. Obstet., Feb., 1894, pp. 250, 251.
"	"	"	Died soon afterward.	M.	9 ¹ / ₂ lb.	?	N. Y. Med. Jour., Aug. 26, 1893, p. 226. Com. of Dr. J. C. House, Nov. 22, 1893.
"	"	"	Lived.	M.	9 lb.	3 ¹ / ₂ in.	Com. by the operator, May 29, 1893. Am. Jour. Obstet., 1893, xxviii, pp. 588, 589.
"	"	"	"	M.	7 ¹ / ₂ lb.	4 in.	Com. by the operator, June 14, 1893. Med. Rec., New York, 1893, xlv, pp. 679-681.

No.	Date.	Operator.	Locality.	Hospital or private.	Age.	No. of preg.	Cause of difficulty.	Time in labor	C. V. diameter.
28	June 23, 1893.	Prof. Robert A. Murray.	New York.	N. Y. Mat. Hosp.	36	4	Small pelvis, with impaction.	6 hrs.	3 $\frac{1}{4}$ in.
29	June 26, 1893.	Prof. Anna E. Broomall.	Philadelphia.	Mat. of Woman's Hosp.	42	12	Flat pelvis.	3 days.	3 $\frac{5}{8}$ in.
30	June 27, 1893.	Prof. Barton Cooke Hirst.	"	Philadelphia Hosp.	32	1	Rachitic pelvis; dwarf, 4 ft. 6 in.	Induced.	2 $\frac{3}{4}$ in.
31	July 21, 1893.	Dr. Cæsar A. von Ramdohr.	New York.	Private.	23	2	Justo-minor pelvis.	5 hrs.	3 $\frac{1}{2}$ in.
32	Aug. 28, 1893.	Dr. John Wotherpoon.	Seattle, Wash.	"	19	2	Disproportion between size of head and outlet.	10 hrs.	4 in.
33	Sept. 1, 1893.	Prof. Sheldon Leavitt.	Chicago.	"	30	3	Equally cont. pelvis.	24 hrs.	3 in.
34	Sept. 8, 1893.	Dr. James S. Brown.	Montclair, N. J.	"	25	2	Cont. pelvis.	20 hrs.	2 $\frac{3}{4}$ in.
35	Oct. 12, 1893.	Prof. Barton Cooke Hirst.	Philadelphia.	Mat. of Univ. of Pa.	22	1	Rachitic pelvis; dwarf, 4 ft. 7 in.	Induced.	2 $\frac{3}{16}$ in.
36	Nov. 8, 1893.	Dr. J. Clifton Edgar.	New York	Private.	19	1	Gen. cont. pelvis.	24 hrs.	3 $\frac{1}{4}$ in.

Part presenting.	Aid to delivery.	Result to woman.	Result to child.	Sex of child.	Weight of child.	B. P. diameter.	References.
Oc.-post., R. O. P.	Forceps	Recov.	Lived.	F.	7 lb. 9 oz.	4 $\frac{1}{4}$ in.	<i>Com.</i> by the operator, Nov. 1, 1893.
Vertex.	"	Died on 11th day.	"	M.	6 $\frac{1}{2}$ lb.	3 $\frac{1}{2}$ in.	<i>Am. Jour. Obstet.</i> , 1893, xxviii, pp. 303-312.
"	Version	Recov.	"	M.	6 $\frac{1}{4}$ lb.	3 $\frac{1}{2}$ in.	<i>Com.</i> by the operator. <i>Med. News</i> , Phila.
L. O. A.	Manual.	"	"	M.	8 $\frac{1}{2}$ lb.	3 $\frac{3}{8}$ in.	<i>Com.</i> by the operator. <i>N. Y. Jour. Gynecol.</i> and <i>Obstet.</i> , 1893, iii, pp. 185-190.
"	Forceps	"	Lived 8 days.	M.	15 $\frac{1}{2}$ lb.	?	<i>Com.</i> by the operator. <i>Med. News</i> , Phila., 1894, lxiv, p. 501.
Vertex.	"	"	Lived.	M.	9 lb.	3 $\frac{3}{4}$ in.	<i>The Clinique</i> , Chicago, Dec. 25, 1893, pp. 544- 550. <i>Com.</i> of Jan. 10, 1894.
"	"	"	"	M.	10 lb.	3 $\frac{1}{2}$ in.	<i>N. Y. Med. Rec.</i> , Nov. 4, 1893, pp. 582, 583.
"	Version	"	Died in de- livery.	M.	?	3 $\frac{1}{2}$ in.	<i>Com.</i> by the operator. <i>Trans. Coll. of Phys.</i> , Phila., Dec. 6, 1893, p. 237.
"	"	"	Lived.	M.	7 lb.	3 $\frac{1}{2}$ in.	<i>Com.</i> by the operator Nov. 24, 1893. <i>N. Y.</i> <i>Medical Journal</i> , vol. lix, Mar. 17, 1894, p. 343.

No.	Date.	Operator.	Locality.	Hospital or private.	Age.	No. of preg.	Cause of difficulty.	Time in labor.	C. V. diameter.
37	Nov. 19, 1893.	Dr. Richard C. Norris.	Philadelphia.	Mat. of Univ. of Pa.	18	1	Flat pelvis.	89 hrs.	2 $\frac{9}{16}$ in.
38	Nov. 24, 1893.	Prof. T. Byron Robinson.	Chicago.	Private.	27	1	Transversely cont. pelvis.	16 hrs.	3 $\frac{1}{8}$ in.
39	Dec. 19, 1893.	Dr. Thomas J. Watkins.	"	Cook Co. Hosp.	43	8	Gen. cont. pelvis.	36 hrs.	Not taken.
40	Dec. 23, 1893.	Dr. Edward P. Davis.	Philadelphia.	Mat. of Jefferson College.	25	2	Justo-minor pelvis.	31 hrs.	2 $\frac{3}{4}$ in.
41	Dec. 30, 1893.	Dr. Daniel Longaker.	"	Private.	30	5	Flat pelvis.	24 hrs.	3 in.
42	Jan. 12, 1894.	Dr. J. Clifton Edgar.	New York.	"	25	2	Gen. cont. pelvis.	14 hrs.	3 $\frac{1}{2}$ in.
43	Feb. 17, 1894.	Dr. Henry Banga.	Chicago.	Chicago Polyclinic.	37	5	Rachitic pelvis.	16 hrs.	2 $\frac{5}{8}$ in.
44	Feb. 19, 1894.	Dr. Chas. W. Co-burn.	Philadelphia.	Private.	14	1	Undeveloped pelvis.	28 hrs.	4 $\frac{1}{2}$ in.
45	Mar. 16, 1894.	Dr. Edward P. Davis.	"	Mat. of Jefferson College.	20	1	Justo-minor pelvis, threatening of eclampsia.	In-duced.	3 $\frac{3}{4}$ in.

Part presenting.	Aid to delivery.	Result to woman.	Result to child.	Sex of child.	Weight of child.	B. P. diameter.	References.
Vertex.	Version	Recov.	Died in delivery.	M.	8 lb.	3 $\frac{1}{2}$ in.	<i>Com.</i> by the operator. New Eng. Med. Monthly, 1893-'94, xiii, July, p. 462-464.
L. O. A.	Forceps	"	Lived.	F.	7 lb.	3 $\frac{1}{2}$ in.	<i>Com.</i> by the operator.
Vertex.	"	Died in 12 hrs.	"	M.	11 lb.	Crushed.	Am. Jour. Obstet., Feb., 1894, pp. 249, 250.
"	"	Recov.	"	M.	7 lb. 11 oz.	4 $\frac{5}{16}$ in.	<i>Com.</i> by the operator, Jan. 25, 1894. Med. News, Phila., Apr. 14, 1894, p. 401.
"	"	"	"	F.	9 $\frac{1}{2}$ lb.	3 $\frac{9}{16}$ in.	<i>Com.</i> by the operator, Jan. 12, 1894. Annals of Gynæcol. and Obs., Phila., 1893-'94, vii, pp. 450-457.
"	Pod. version.	"	"	F.	9 lb.	3 $\frac{3}{4}$ in.	<i>Com.</i> by the operator, Feb. 19, 1894.
Transverse.	Forceps	"	"	M.	7 $\frac{11}{16}$ lb.	?	<i>Com.</i> by the operator. Am. Jour. Obstet., Dec., 1894, p. 761.
Vertex.	"	Died in 5 days.	Died in delivery.	M.	11 lb.	4 $\frac{1}{8}$ in.	<i>Com.</i> by the operator, May 10, 1895.
"	"	Recov.	Lived.	M.	5 $\frac{11}{16}$ lb.	3 $\frac{1}{2}$ in.	<i>Com.</i> by the operator. Med. News, Phila., Apr. 14, 1894, p. 402.

No.	Date.	Operator.	Locality.	Hospital or private.	Age.	No. of preg.	Cause of difficulty.	Time in labor.	C. V. diameter.
46	Mar. 19, 1894.	Dr. Chas. P. Noble.	Philadelphia.	Kensington Hosp. for Women.	32	6	Cont. pelvis.	10 hrs.	2¾ in.
47	Apr. 3, 1894.	Do.	"	Private.	34	7	Flat, rachitic pelvis.	38 hrs.	C. D. 4 in.
48	Apr. 7, 1894.	Dr. Edward P. Davis.	"	Mat. of Jefferson College.	33	1	Flat, rachitic, funnel-shaped pelvis.	30 hrs.	C. V. 4 in.
49	Apr. 26, 1894.	Prof. Barton Cooke Hirst.	"	Private.	30	2	Flat, rachitic pelvis.	8 hrs.	3⅞ in.
50	May 10, 1894.	Dr. James B. O'Neill.	Portland, Me.	Maine Eye and Ear Infirmary.	28	3	Gen. cont. pelvis.	26 hrs.	2¾ in.
51	May 14, 1894.	Dr. Geo. Gross.	San Francisco.	Private.	30	2	Head locked after delivery of breech.	12 hrs.	2½ in.
52	June 17, 1894.	Dr. Henry D. Fry.	Washington, D. C.	"	29	1	Cont. pelvis.	48 hrs.	3⅓ in.
53	June 19, 1894.	Prof. Malcolm L. Harris.	Chicago.	"	28	1	" "	30 hrs.	2¾ to 3 in.
54	June 21, 1894.	Drs. Collier and Grandin.	New York.	"	28	2	Flat, rachitic pelvis.	Induced.	3½ in.

Part presenting.	Aid to delivery.	Result to woman.	Result to child.	Sex of child.	Weight of child.	B. P. diameter.	References.
Vertex.	Forceps	Recov.	Lived.	F.	6 $\frac{1}{2}$ lb.	3 $\frac{3}{8}$ in.	<i>Com.</i> by the operator. (Second operation on Case 9.)
"	"	"	Died directly.	M.	8 lb.	?	<i>Com.</i> by the operator.
L. O. A.	"	"	Lived.	F.	7 $\frac{1}{2}$ lb.	3 $\frac{3}{4}$ in.	<i>Com.</i> by the operator. Boston Med. and Surg. Jour., Aug. 23, 1894.
R. O. P.	"	"	"	F.	9 $\frac{3}{4}$ lb.	4 in.	<i>Com.</i> by the operator.
L. O. A.	"	"	"	F.	8 lb.	3 $\frac{1}{2}$ in.	Trans. Maine Med. Ass., 1894, pp. 477-485.
Breech.	Manual.	"	Dead.	F.	Average.	Average.	<i>Com.</i> by the operator. Occidental Med. Times, Sacramento, 1894, viii, p. 538.
L. O. A.	Forceps	"	Lived.	M.	9 $\frac{3}{4}$ lb.	3 $\frac{3}{4}$ in.	<i>Com.</i> by the operator.
R. O. A.	"	"	"	M.	10 lb.	Long.	Am. Jour. Obstet., Dec., 1894, pp. 765, 766. <i>Com.</i> of operator, Dec. 21 1894.
L. O. A.	Version	"	"	M.	8 $\frac{1}{4}$ lb.	4 $\frac{1}{4}$ in.	<i>Com.</i> by the operator.

No.	Date.	Operator.	Locality.	Hospital or private.	Age.	No. of preg.	Cause of difficulty.	Time in labor.	C. V. diameter.
55	June 27, 1894.	Prof. Henry J. Garrigues.	New York.	St. Mark's Hosp.	29	2	Soft tumor in recto-vaginal wall.	13 hrs.	Normal.
56	July 19, 1894.	Dr. T. E. Schumpert.	Shreveport, La.	Private.	30	..	Slightly contracted pelvis and large head.	62 hrs.	3 $\frac{7}{8}$ in.
57	July 31, 1894.	Dr. Geo. W. Jarman.	New York.	Blackwell's Island Hosp.	22	2	Justo-minor pelvis.	4 hrs.	?
58	Aug. 8, 1894.	Dr. Richard C. Norris.	Philadelphia.	Preston Retreat.	30	3	Flat rachitic pelvis.	6 $\frac{1}{2}$ hrs.	3 $\frac{1}{4}$ in.
59	Aug. 21, 1894.	Dr. Frank D. Gray.	Jersey City.	Christ Hosp.	27	3	Flat pelvis.	18 hrs.	?
60	Sept. 5, 1894.	Dr. Henry C. Coe.	New York.	N. Y. Mat. Hosp.	40	3	Contracted pelvis.	24 hrs.	3 $\frac{1}{4}$ in.
61	Sept. 20, 1894.	Prof. Malcolm L. Harris.	Chicago.	Private.	28	1	Small oblique pelvis.	16 hrs.	2 $\frac{3}{4}$ in.
62	Sept. 24, 1894.	Dr. J. Clifton Edgar.	New York.	"	35	4	Trans. narrowed pelvis.	9 hrs.	4 in.
63	Oct. 10, 1894.	Dr. Henry C. Coe.	"	N. Y. Mat. Hosp.	29	2	Flat pelvis.	$\frac{1}{2}$ hr.	3 $\frac{1}{2}$ in.

Part presenting.	Aid to delivery.	Result to woman.	Result to child.	Sex of child.	Weight of child.	B. P. diameter.	References.
Vertex.	Forceps	Recov.	Lived.	F.	10 $\frac{3}{4}$ lb.	?	<i>Com.</i> by the operator. N. Y. Medical Record, Nov. 10, 1894, pp. 577-580.
L. O. A.	"	Died on 5th day.	Dead; destroyed by forceps.	M.	14 lb.	?	New Orleans Med. and Surg. Jour., May, 1895, pp. 788-792. <i>Com.</i> May 17, 1895.
L. O. A.	Version	Recov.	Lived.	M.	6 $\frac{11}{16}$ lb.	3 $\frac{1}{2}$ in.	<i>Com.</i> by the operator.
L. O. A.	Forceps	"	"	M.	7 $\frac{1}{4}$ lb.	3 $\frac{1}{2}$ in.	<i>Com.</i> by the operator.
L. O. P.	"	"	Died in 6 hours, fract. os occipit.	M.	10 $\frac{1}{2}$ lb.	?	N. Y. Med. Record, May 18, 1895, p. 617. <i>Com.</i> by Dr. Joseph M. Rec-tor, May 20, 1895.
L. O. P.	Version	"	Died in 6 days, pneumonia.	M.	8 $\frac{3}{4}$ lb.	?	<i>Com.</i> by the operator, Oct. 12, 1894.
L. O. P.	Forceps	"	Lived.	F.	8 lb.	?	American Journal of Obstetrics, December, 1894, pp. 766, 767. <i>Com.</i> by the operator, December 21, 1894.
Vertex.	Version	"	"	F.	8 lb.	3 $\frac{3}{4}$ in.	<i>Com.</i> by the operator, April 22, 1895.
"	"	"	Died in $\frac{1}{2}$ hour.	M.	6 $\frac{14}{16}$ lb.	?	<i>Com.</i> by the operator, Nov. 10, 1894.

No.	Date.	Operator.	Locality.	Hospital or private.	Age.	No. of preg.	Cause of difficulty.	Time in labor.	C. V. diameter.
64	Oct. 23, 1894.	Dr. Leonard Wheeler.	Worcester, Mass.	Worcester Hosp. Mat.	28	7	Gen. cont. pelvis.	10 hrs.	3 $\frac{1}{4}$ in.
65	Oct. 26, 1894.	Dr. H'y McM. Painter.	New York.	Out-patient service, Lying-in Hosp.	19	1	Flat rachitic pelvis. Right lateral obliquity.	15 hrs.	3 $\frac{1}{4}$ in.
66	Nov. 6, 1894.	Prof. Rob't A. Murray.	"	N. Y. Mat. Hosp.	27	1	Gen. cont. pelvis.	14 $\frac{1}{2}$ hrs.	C. D. 3 $\frac{3}{4}$ in.
67	Dec. 8, 1894.	Prof. Barton Cooke Hirst.	Philadelphia.	Mat. of Univ. of Pa.	30	1	Moderately cont. pelvis and slightly enlarged h'd.	20 hrs.	C. V. 3 $\frac{3}{4}$ in.
68	Jan. 4, 1895.	Dr. Thos. R. Savage.	New York.	Private.	24	3	Funnel-shaped pelvis.	24 hrs. Labor induced.	4 $\frac{1}{2}$ in. estimated.
69	Jan. 25, 1895.	Dr. J. Clifton Edgar.	"	"	25	1	Funnel-shaped pelvis, cont. outlet.	64 hrs.	?
70	Feb. 20, 1895.	Dr. Edw'd P. Davis.	Philadelphia.	Polyclinic Hosp.	27	1	Justo-minor pelvis.	At intervals for a week.	3 $\frac{3}{8}$ in.
71	Mar. 24, 1895.	Dr. Daniel Longaker.	"	Private. (Case 24, 2d operation.)	32	5	Flat pelvis.	15 hrs.	3 in.
72	Mar. 28, 1895.	Dr. J. Richard Taylor.	Sag Harbor, N.Y., on Shelter Isl'd.	Private.	27	1	Flat pelvis, cedema of vagina and vulva.	62 hrs.	3 $\frac{3}{8}$ in.

Part presenting.	Aid to delivery.	Result to woman.	Result to child.	Sex of child.	Weight of child.	B. P. diameter.	References.
L. O. A.	Forceps	Recov.	Lived.	M.	$8^{10}/_{16}$ lb.	4 in.	Boston Med. and Surg. Jour., 1894, cxxxi, p. 637. <i>Com.</i> by the operator, Dec. 4, 1894.
Vertex.	Version	"	"	M.	$8^{1}/_{2}$ lb.	$3^{3}/_{4}$ in.	<i>Com.</i> by the operator, Dec. 7, 1894.
L. O. A.	Forceps	"	"	M.	$6^{14}/_{16}$ lb.	$4^{1}/_{4}$ in.	<i>Com.</i> by the operator, Dec. 14, 1894.
R. O. A.	Craniotomy, hydroceph.	"	Dead; craniotomy.	F.	$9^{1}/_{2}$ lb.	$4^{1}/_{8}$ in.	<i>Com.</i> by the operator, Jan. 12, 1895.
L. O. A.	Forceps	"	Lived.	F.	$6^{3}/_{4}$ lb.	$3^{1}/_{2}$ in.	<i>Com.</i> by the operator, May 14, 1895.
Brow.	Version	"	"	F.	8 lb.	$3^{1}/_{2}$ in.	<i>Com.</i> by the operator, Mar. 4, 1895.
Vertex.	Forceps	Died on 4th day.	"	M.	?	$4^{3}/_{16}$ in.	<i>Com.</i> by the operator, Apr. 19, 1895.
R. O. I.	"	Recov.	"	M.	7 lb. +	$3^{15}/_{16}$ in.	<i>Com.</i> by the operator, Apr. 14, 1895.
L. O. A.	"	"	Dead before operation.	F.	$7^{15}/_{16}$ lb.	$3^{1}/_{4}$ in.	<i>Com.</i> by the operator, May 13, 1895.

No.	Date.	Operator.	Locality.	Hospital or private.	Age.	No. of preg.	Cause of difficulty.	Time in labor.	C. V. diameter.
73	Mar. 29, 1895.	Prof. Barton Cooke Hirst.	Philadelphia.	Private.	33	4	Gen. cont. pelvis.	4 days.	3 $\frac{1}{2}$ in.
74	Apr. 16, 1895.	Prof. Wm. T. Lusk.	New York.	N. Y. Infant Asylum.	19	1	Rachitic pelvis.	19 hrs.	3 $\frac{1}{4}$ in.

Symphiseotomies

1	Dec. 6, 1892.	Dr. J. Anders'n Springle.	Montreal.	Private.	25	1	Cont. pelvis.	24 hrs.	3 in.
2	May 2, 1893.	Prof. J. Chalmers Cameron.	Do.	Montreal Mat.	20	1	Rachitic pelvis. Dwarf, 4 ft. 6 $\frac{1}{2}$ in.	14 hrs.	2 $\frac{2}{16}$ in.
3	June 30, 1893.	Dr. J. H. Burns and Dr. A. B. Athert'n.	Toronto.	Private.	34	1	Small pelvis. Dwarf, 4 ft. 6 in.	33 hrs.	3 in.
4	July 26, 1894.	Prof. J. Chalmers Cameron.	Montreal.	Montreal Mat.	23	1	Flat rachitic pelvis; eclampsia; 19 convulsions.	13 $\frac{3}{4}$ hrs.	2 $\frac{3}{4}$ in.
5	Oct. 10, 1894.	Dr. C. P. Sylvester.	Toronto.	Grace Hosp.	27	3	Cont. pelvis.	Morning to mid-night.	2 $\frac{3}{4}$ in.

Part presenting.	Aid to delivery.	Result to woman.	Result to child.	Sex of child.	Weight of child.	B. P. diameter.	References.
R. O. P.	Forceps	Recov.	Lived.	M.	7½ lb.	3¾ in.	<i>Com.</i> by the operator, Apr. 15, 1895.
Head.	"	Died on 7th day.	"	F.	8 lb.	?	<i>Com.</i> by the operator, May 4, 1895.

of Canada.

R. O. A.	Forceps	Recov.	Lived.	F.	7¼ lb.	3¾ in.	Montreal Med. Jour., Jan., 1893. <i>Com.</i> Apr. 2, 1893, and Dec. 1, 1894.
L. O. A.	"	"	"	F.	7½ lb.	3⅝ in.	<i>Com.</i> May 10, 1893.
L. O. A.	"	"	"	F.	7 lb. 9 oz.	?	Dominion Med. Monthly, July, 1893, pp. 1, 2. <i>Com.</i> of Nov. 26, 1894.
L. O. A.	"	"	"	M.	7 lb. 4 oz.	3⅜ in.	<i>Com.</i> Aug. 8 and Dec. 1, 1894.
Vertex.	"	"	"	M.	8 lb.	3⅞ in.	Canadian Practitioner, Feb., 1895, pp. 92-98.

